

**Programmatic Environmental Assessment  
Fencing Projects  
Rawlins Field office**

**EA Number: WY-030-04-EA-192**

**Introduction**

The Rawlins Field Office completes a variety of fence projects each year. Project development includes initial project proposal and design, interdisciplinary review, NEPA analysis, project construction, and monitoring. Most fence projects incorporate standard design and construction methods and, typically, environmental assessments are quite similar. The majority of fence projects would, therefore, lend themselves to analysis in a programmatic environmental assessment. Individual fence projects would be screened using the Administrative Determination process and form found in BLM Manual 1790-1 – National Environmental Policy Act Handbook.

Fence projects that fall outside the scope of the programmatic EA would have independent EAs completed for each action. Environmental assessments would address any actions not covered in this programmatic EA and would tier to this EA where possible.

The intent of this programmatic EA is to assess the environmental effects associated with rangeland fence projects. A programmatic EA would meet the requirements of the National Environmental Policy Act of 1969 while avoiding the redundancy that results from preparing separate EAs for the same types of projects. This assessment is written by authority of the Federal Land Policy and Management Act (FLPMA); P.L. 94-579, Public Rangeland Improvement Act (PRIA); P.L. 95-514, and the Water Resources Planning Act; P.L. 89-90.

The Code of Federal Regulations (CFR's) contains the fundamental regulations and direction that guides the Bureau of Land Management (BLM) in its administration of public rangelands. 43 CFR 4180.1 details four fundamentals of rangeland health, they are:

- Watersheds are in or are making progress toward properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.
- Ecological processes including the hydrologic cycle, nutrient cycle, and energy flow are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

- Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving established BLM management objectives such as meeting wildlife needs.
- Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened, endangered, proposed and candidate species, and other special status species.

The 1995 Rangeland reform process modified the grazing regulations to address the fundamentals of rangeland health. In August 1997, the "Standards for Healthy Rangelands" (SHR) and Guidelines for Livestock Grazing Management for the Public Lands Administered by the Bureau of Land Management in the State of Wyoming were approved by the Wyoming State Director. The objectives of the rangeland health regulations are to "promote healthy sustainable rangeland ecosystems; to accelerate restoration and improvement of public rangelands to properly functioning condition and to provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands." The fundamentals of rangeland health combine the basic precepts of physical function and biological health with elements of law relating to water quality and plant and animal populations and communities. Initially the standards focused on livestock grazing on BLM-administered lands, but the SHR were developed to apply to all uses and resources. The evaluation process or standards assessment is completed by an ID team of agency personnel and interested publics. The ID team usually consists of personnel with varying expertise (i.e. wildlife biologist, hydrologist, rangeland management specialist, soils specialist, weeds specialist, and interested parties such as landowners and/or grazing operators).

### **Purpose and Need for Action**

The need for the proposed action is to ensure rangelands within the Rawlins Field Office comply with the Fundamentals of Rangeland Health under the SHR's. In August 1997, the SHR and Guidelines for Livestock Management (43 CFR 4180.1-2) for Public Lands Administered by the Bureau of Land Management in the State of Wyoming were approved by the Wyoming State Director. The Standards assessment identifies specific allotments or watersheds that fail one or more standards due to grazing management and/or other factors, and designates that mitigating actions be implemented when practicable, but no later than the next grazing season (43 CFR 4180.3 paragraph C) when livestock related. The Standards process also allows resource managers the ability to designate Desired Future Conditions (DFC's) for allotments and watersheds. DFC's are resource conditions which may be elevated above those required for an allotment/watershed to meet standards.

The purpose for the proposed action is to analyze and disclose smaller scale actions, relating to fences, that may routinely be taken within the Rawlins Field Office to address opportunities and problems in achieving or maintaining SHR's.

### **Conformance with Land Use Plan and Other Direction**

The proposed action is in conformance with the Great Divide Resource Management Plan (RMP) (November 1990). Grazing systems will be designed to achieve the livestock grazing objective, pg. 24 of the RMP. Range improvement projects are designed to facilitate implementation of grazing systems and to protect riparian habitat, Livestock Grazing Appendix, Medicine Bow-Divide Resource Management Plan/Draft EIS, pg. 374.

The proposed action is in conformance with RMP objectives related to the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Wyoming. The proposed action would contribute to the achievement of the four fundamentals of rangeland health outlined in the grazing regulations (43 CFR 4180.1). Specifically, language in Fundamentals #1 and #4 apply; to enhance livestock grazing while maintaining a balance between economic uses and the enhancement of wildlife habitat, watershed, and riparian areas, while maintaining range condition at, or improving range condition toward, the potential for the ecological site.

The implementation of range improvement projects on non-Federal lands, falls under the California State Office IM No. 87-54 based on Solicitors Opinions concerning the expenditure of Federal funds for wildlife projects on non-Federal lands.

The Regional Solicitor, Pacific Southwest Region, concluded that the Federal Land Management Policy Act (FLMPA), section 307, 43 U.S.C. 1737, gives the Director authority to carry out projects on (or of benefit to) non-Federal lands so long as the expenditures are made pursuant to a cooperative agreement between the landowner and BLM and the expenditures are intended to benefit BLM programs.

### **Alternatives and Alternatives Considered but not Analyzed in Detail**

#### **The Proposed Action Alternative**

The proposed action is to construct new rangeland fences including enclosures, and/or to modify existing fences, within the Rawlins Field Office management area. The role of fences are to provide reasonable control of livestock (cattle, bison, sheep, etc.) and wild horse movement by either containing or excluding the animals regardless of design. Although there are many effective designs, the goal is to find the optimum design for the job to be done while still providing for wildlife movement and other public land uses. Maintenance will be assigned to the grazing permittee if livestock grazing is the principle beneficial use. In situations where livestock grazing is not the primary use (i.e., where wildlife, wild horses, watershed, or recreation are the beneficial uses), maintenance will be assigned to a cooperating partner or retained by the BLM. All cultural resource, invasive weed, and T&E/wildlife consultations and clearances would be completed prior to any decision to proceed with a specific project. Project proposals would be provided to the Wyoming Department of Agriculture, Wyoming Game and Fish Department, and interested publics. Recommendations and stipulations identified as part of the

environmental review process would be made part of the administrative determination prior to approval.

Construction activities would be in compliance with all recommendations, mitigation measures, or stipulations developed as part of this EA or as part of the environmental review and administrative determination process for specific project proposals. Size of individual projects would vary. Examples would include gap fences of only 1/4 mile in length to allotment boundary fences of 20 miles or more. Exclosures range from 200 square feet to protect water wells up to 200 acres or more for special management areas. Project costs would vary depending on the size and scope of each project. Fence projects within the RFO management area in the past have been in the range of \$500 to \$50,000. Typical construction would require a tractor w/auger, a backhoe, or a drill truck to set brace posts and hand drivers or pneumatic drivers to set line posts. The same equipment or pickup trucks would be used to layout and sometimes stretch the wire if not done by hand. Specifications for different fence designs are described in BLM Fence Manual H-1741-1 and Handbook - Fences, 2400-Range, 1988, and supplements made to the handbook, 2003. Fence modification is discussed below, but fences may also need to be relocated due to maintenance problems or to meet objectives for other resources.

Cattleguards and/or gates are necessary where fences cross roads, or to provide ingress or egress to exclosures, are also considered part of fence projects. Typical construction would require a backhoe to trench across the road and to set a prefabricated concrete cattleguard base and prefabricated metal cattleguard within the trench. The fence would be terminated at each end of the cattleguard with an H-brace. The H-brace would be attached to wing panels that extend out from each end of the cattleguard base. Materials would be delivered to the site via existing roads. Cattleguard construction normally would occur within the area previously disturbed during road construction. A sufficient number of gates would be constructed in any given fence to assure that reasonable access or animal passage is maintained. This will vary based on terrain, management needs, and general use of any area by wildlife, livestock, wild horses, and/or people.

#### Mitigation Measures, Standard Operating Procedures, Special Stipulations.

The following special construction conditions would be attached to each individual fence project and would be made part of each Administrative Determination decision.

- Fence projects would be accessed using existing roads and trails.
- Cross-country travel would be restricted to the actual fence route.
- Cross-country travel not along the actual fence route would require BLM authorization before construction begins.
- Only rubber-tired vehicles will be used during fence construction.

- Wildlife timing stipulations - Timing restrictions to avoid construction during critical breeding, nesting, or wintering periods would meet site-specific needs of affected wildlife species. Consultation and other activities potentially disruptive to T&E species and/or their habitat would be prohibited during certain times periods and consultation with the U.S. Fish and Wildlife Service would occur.

- A Class III Cultural Resource Inventory will be conducted for all fence projects and all National Register Eligible resources will be avoided.

- If cultural or paleontological resources are discovered at any time during construction, all construction activities would cease and BLM personnel will be immediately notified. Work will not proceed until cultural or paleontological materials are evaluated and clearance to proceed is given.

- WSA interim guidance concerning construction of range improvement projects would be followed.

- Fence construction will be postponed or suspended if soils become saturated or ruts greater than four inches deep are produced by vehicles.

- The fence line will not be cleared of vegetation unless the height of the vegetation makes fence construction impossible or vegetation height needs to be reduced to assure proper function of electric fence. Brush-beating or removal of brush with hand labor is a standard practice if needed. Approval by the BLM will be required to remove vegetation by blading (with a dozer) or when any soil disturbance will occur along the fence line.

- Noxious or invasive weed patches will be identified along fence routes and actions taken to assure that weeds are not spread to new areas. Actions may include pre-treatment of weeds, rerouting of the proposed fence line, and/or washing of equipment used to construct fences through weed infested areas.

- Fences would be signed to remind recreationists to leave gates as they are found. Signs identifying private/public boundaries would be placed where appropriate. Signs would identify to the public that high-tensile fences may be electrified.

***Various standard types of fence designs and construction are described below.***

**BARBED-WIRE FENCE** - Barbed wire fences are the traditional fence design for controlling livestock movements. Typical barbed-wire fences have wooden H-braces placed every 1/4 mile or closer together if the topography requires it. In some cases, H-braces may be constructed of welded steel pipe or may be steel prefab panels fastened to wood or steel set posts. Five to six foot steel posts are placed every 16.5 feet between brace posts. For some fences 3 to 5 inch diameter wood posts are used instead of steel posts. In open rangeland there are usually three wires; the top two wires are barbed and the bottom wire is barbless (smooth). Wire spacing is

typically 16, 26, and 38 inches above the ground. Wire or wooden stays (2 or 3 between each set post) are used to maintain wire spacing. Where cattle pressure against a fence is greater than normal, such as adjacent to riparian areas, or where yearlings or increased numbers of cattle are pastured, the fence design would be four wires. The top three wires are barbed, and the bottom wire is barbless. Wire spacing is 16, 22, 28, and 40 inches above the ground. This type of fence can also be constructed to be "let down", either for climate or wildlife considerations. "Let down" type fences are constructed to allow the wires to be adjusted up or down or to allow secondary wood line posts, to which the wires are attached, to be laid on the ground and/or attached to the steel or wood set line posts with wire loops. The weight of snow can force the fence down or it can be laid down and set up by hand. Barbed wire fences often have wire or wood stays placed between the set posts to maintain wire spacing. It is recommended that the bottom wire not be attached to the stay to allow it to move upward and allow wildlife movement under the fence. Older barbed wire fences consisting of five and six strands of barbed wire may be modified to three or four wires as described above.

**SHEEP, MESH, or NET WIRE FENCE** - This is the "old style" fence built for sheep allotments. The brace posts and line posts are the same specifications as for the barbed-wire fence described above. However, 20 to 36 inch high wire-mesh fence would be placed from the ground up; with 1 to 3 barbed wires fastened 4 to 12 inches above the mesh fence. This type of fence is the principle fence design identified for modification because this design most severely restricts wildlife movement. Since cattle have largely replaced sheep on BLM rangelands and since sheep that do remain are herded, this fence design is not in great demand in this area. These fences are usually replaced with barbed-wire fence or buck and pole fence. In key wildlife use areas such as migration corridors, mesh or barbed-wire fences are often knocked down. Fences in these high use areas would have a wooden rail placed at the top of the fence to make these fences more visible to animals and therefore, less likely to be knocked down.

**HIGH TENSILE FENCE** - Also known as "New Zealand" fence after the country of origin, this type of fence is often electrified. The publication entitled "Fences," prepared in cooperation with the Bureau of Land Management, USDA Forest Service, Technology and Development Program, and the Society for Range Management, pages 87 -134 is a handy reference for electric fence specifications. Also refer to the attached illustrations for design specifications specific to guidance herein. (See pages 24 and 25 of the University of Wyoming evaluation report for design illustrations).

Information gained from the field evaluation conducted by the University of Wyoming referenced above, indicates that a 3-wire electric fence is the optimal design to meet the goals of the livestock producer running cattle and/or bison, and the wildlife manager with a concern as to the affects on wildlife movement. The height of this fence is 42" with the bottom wire 22" above the ground with 10" spacing between wires. If circumstances warrant, this standard may be modified to 40" inches high 12" between top and middle wire, 10" between middle and bottom wire, with the bottom wire 18" above ground. The electric fence designs friendliest to wildlife are ineffective in controlling sheep because the bottom wire must be lower than 16". Therefore, electric allotment boundary and/or pasture fences for controlling sheep will not be

allowed on public lands in Wyoming.

Two-wire designed electric fences pose little or no problem to elk or mule deer movement, but are confusing to pronghorn and result in high aversion rates. If pronghorn are present, a 3-wire fence is the preferred design, based on studies where the fence is 30" (hot) with the bottom wire 20" (ground) above the ground with 10" spacing between the wires. However, one and two-wire electric fences with the bottom wire being 30" or greater off the ground and a top wire no higher than 42" off the ground (where they correspond to the middle or upper wires on a three-wire fence) should have similar or lower impacts to big game movement than the three-wire fence observed in the Wyoming study. Two-wire fences effectively control cattle in most all situations, but should not be used as a weaning fence. This fence design is not recommended for bison containment.

There is really no need for a 4-wire electric fence, even to contain bison. The above-mentioned study shows that the 3-wire electric fence performed satisfactorily with both classes of livestock. However, if circumstances dictate the absolute need, such a fence will conform to the standard 4-wire fence design with bottom wire 16" and cold or not charged. This design keeps the height of the fence to no more than 42" compared to 52" for the 4-wire electric fence often used for bison operations.

Any electric fence being proposed for the intended purpose of this policy having 5 wires or more and/or greater than 42" in height will not be allowed on BLM administered lands in Wyoming.

A ¾ to 1" diameter fiberglass fence post is recommended. However, pointed wooden posts have been successful. Steel posts may be used but are not recommended. Insulators are necessary when using steel posts.

The recommended wire type is a smooth high tensile 12.5-gauge either 170,000 or 200,000 psi. 170,000 psi is preferred because it is the easiest to handle and to tighten. It is recommended that wires be tightened to 150 lbs tension. 14-gauge high tensile wire is too thin and difficult to see resulting in an unacceptable increase hazard to wildlife and to human safety. Components or material used in lieu of high tensile wire such as tape, twine, wire nylon, etc. are not recommended. These materials will not withstand the weather in the long term. For temporary or short term use (e.g. 6 months or less) these work reasonably well. To use them otherwise will increase material replacement cost and repair time.

Energizers must be Underwriters Laboratory (U.L.) approved in accordance with U.L. Standard 69. This means it has been approved safe for human use. Energizers vary in joules or capacity. How much capacity depends on the miles of fence to be energized and the number of wires. Regardless of energizer capacity, the limits are: (1) energy 5 to 8 joules, and (2) peak current no greater than 10 amperes.

The use of wire stays is optional. The preference is not to use them because of higher maintenance costs associated with the fence grounding out when the stays are hit by wildlife or

livestock causing the wires to twist together. Twisting also presents a higher risk for the animal to become entangled. However, with smooth wire and the 10" to 12" spacing, the risk of entanglement is minimal. Stays also tend to make the fence a little less friendly for wildlife that traverse between wires by reducing the flexibility between wires due to recommended spacing requirements. Therefore, the recommended fence post spacing is 50' if stays are not used. If posts are greater than 50' apart and stays are determined to be needed, a rule-of thumb calls for a distance of 30' between stays (e.g., 60' between posts with 1 stay and 90' line post spacing with 2 stays). Older fences constructed in the Rawlins area have used wood posts spaced up to 120' apart in flat terrain, with up to 3 stays. Local experience with these fences show a greater tendency for wires to twist and stay that way when a single stay is used compared to two or three stays. Spacing of posts and stays should be site-specific based on the type of terrain where the fence is located.

**Safety Requirements/Mitigations:** Electric fences on public land raise concerns of safety, particularly for those who may have heart pace makers. In addition, the potential of receiving a shock is a concern of most people. Therefore, they become reluctant to cross the fence and then the issue becomes one of access to and over public lands.

To help alleviate these concerns, the measures listed below will be required for all electric fences allowed on public lands in Wyoming.

During periods of inactivity (e.g., when no livestock are in the pasture controlled by the fence) the power will be shut off. If possible, turning them off during peak recreation use times such as hunting season may be desirable.

Gates will not be electrified. Stiles or pedestrian walk through as shown in Illustration 3 of the Fencing Handbook 1741-1 would be installed to provide passage relatively safe from shock when gates are not available. These fence crossings would be provided as determined by the BLM and the cooperator and identified as a special condition in Sec. 14 of Form 4120-6, Cooperative Range Improvement Agreement dated June 2002.

Signs warning of the electric fence will be placed at common crossing points and at intervals along the fence. Signs provided by the fence manufacturer tend to blow off. Therefore, they need to be securely attached to assure they will remain.

**Other Considerations:** The following are other considerations important to effective electric fence planning and management:

Electric fences are very effective for enclosing and managing riparian areas because wet sites provide for improved electrical grounding to maintain some level of shocking stimulation during dry periods.

The use of flagging and/or signs to highlight fence is beneficial to help animals visibly see the fence. This is particularly helpful in keeping birds from flying into them and in wooded areas

were lighting is poor. Attention to fence location in relation to bird concentration areas such as greater sage-grouse leks would occur. No electric fence should be placed within 1 mile of a greater sage-grouse lek because of an increased probability that birds will collide with the wires as they fly to the lek during the early morning hours when visibility is limited.

A fence in poor maintenance condition and lying on the ground is an entanglement danger both to livestock and wildlife. It is extremely important that maintenance responsibilities are clear and enforced. This will be clearly stipulated on the Cooperative Range Improvement Agreement, Form 4120-6.

**BUCK AND POLE FENCE - POST AND POLE FENCE** - These types of fences are used when wire fences are not desired because of aesthetics, maintenance concerns (snow pack), or when fence construction is required across boggy, rocky, or in forested areas. Wood posts or crossbucks are used every 10 to 20 feet, with 2 or 3 wood rails fastened between each set of upright posts. Spacing of rails is similar to that described under high-tensile fence above. Spikes, wire, and/or all-thread rod with nuts are used to attach wood posts and rails together. This type of fence requires the most time and materials to build, and is usually the most expensive.

**EXCLOSURE FENCES** - Enclosure or special management fences are designed to accommodate specific resource needs. Enclosure fences may be one of the fence types already described above, or designed to meet a specific resource need. Some examples include: the A&M Reservoir enclosure fence which is a four-strand barbed wire fence with wires spaced 18, 28, 38 and 48 inches above the ground to keep wild horses out; small spring and well enclosures which are constructed with steel hog panels 52 inches tall by 16 feet long and fastened to wood set posts; big game enclosures which are constructed of mesh fence 7 to 8 feet high; and waterfowl enclosures which are constructed of mesh fence 4 feet high. Large spring and reservoir enclosures are built using barbed-wire and high-tensile fence described above. Small spring and riparian habitat enclosures which receive more pressure from cattle have a wooden top rail or wooden top and bottom rails with mesh and/or barbed-wire between the rails.

**DRIFT FENCES** - Drift fences would be utilized where topographic features are largely sufficient to restrict livestock movement between pastures or allotments. Drift fences would normally be short sections of fence placed to span gaps in the topographic barrier where livestock are accustomed to travel. Fence styles could be any of the designs mentioned above.

### **Herding Alternative (Considered but not Analyzed in Detail)**

Herding can be used to manage livestock to achieve some resource objectives, usually in conjunction with other management tools. However, in many situations herding would not provide sufficient control of livestock. Herding is also not a replacement for fences in special management situations such as springs, fish ponds, and other riparian and/or recreational areas where total exclusion of livestock or large ungulates is required. The use of herding exclusively

is uneconomical in most circumstances due to the high cost of labor. Herding also would not be acceptable for managing wildlife or wild horses. For these reasons, this alternative will not be considered further in this environmental assessment. This does not, however, imply that herding would never be used in some circumstances to meet special resource objectives, only that herding would not be considered as an alternative to fencing in all situations.

### **Water Development Alternative (Considered but not Analyzed in Detail)**

Water developments are another management tool which can be used to meet many rangeland resource objectives. In order to control season-of-use and/or duration-of-use in specific management areas, water source(s) such as wells, pipelines, and troughs/storage tanks would be controlled. Pits and reservoirs without fencing would not provide adequate control. Even with controlled water sources, the ability to manage use by livestock, wild horses, and/ or wildlife in riparian areas or other special management areas would be minimal, and protection of the source reduced. Negative impacts would still occur and it is highly unlikely that resource objectives would be achieved. For these reasons this alternative, as a substitute to new fencing, will not be considered further in this environmental assessment.

### **The No Action Alternative**

This alternative would eliminate new fencing on public land as a management tool. Existing fences would be maintained. Fence projects could occur on private surface. Resource objectives would have to be achieved using other management techniques. New fences would not be built and existing fences would not be modified under this EA. Special management areas would rely on other management techniques to isolate special use. Exclosure construction for studies or protection of special values would not be permitted. Individual fences could be proposed, evaluated, and approved under other, subsequent NEPA analysis.

### **Affected Environment**

The Code of Federal Regulations (CFR's) contains the fundamental regulations and direction that guides the Bureau of Land Management (BLM) in its administration of public rangelands. 43 CFR 4180.1 details four fundamentals of rangeland health. They are:

- Watersheds are in or are making progress toward properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.
- Ecological processes including the hydrologic cycle, nutrient cycle, and energy flow are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

- Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving established BLM management objectives such as meeting wildlife needs.
- Habitats are, or are making significant progress toward being, restored or maintained for federal threatened and endangered species, federal proposed, federal candidate and other special status species.

The Six Wyoming Standards for Healthy Rangelands are:

Standard 1: Within the potential of the ecological site (soil type, landform, climate, and geology), soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.

Standard 2: Riparian and wetland vegetation have structural, age, and species diversity characteristics of the state of channel success and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for ground water recharge.

Standard 3: Upland vegetation on each ecological site consist of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance.

Standard 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

Standard 5: Water Quality meets state standards.

Standard 6: Air Quality meets state standards.

The Affected Environment is described using the Standards for Rangeland Health as follows:

#### **Standard 1: Soils/Watershed Health**

The RFO encompasses portions of three hydrologic basins, which include the Upper Colorado River, Great Divide Basin and the North Platte River. Since Wyoming was once covered by an inland sea, series of depositional events created the soils present today that are dominated by sandstones and shales with varying amounts of salts. As precipitation increases at higher

elevations, salts are leached to deeper horizons and organic matter increases, leading to greater soil development. Over time this has created a natural mosaic of sand, clay and loamy textures across the landscape. Plant cover on these soils depends on the texture, development, precipitation zone, and other influences upon each site. In general, plant cover consists of native species of grasses, forbs, shrubs and trees, and is adequate to protect and hold existing soils in place if not disturbed. However, there is evidence that grazing practices (in particular the conversion of grazing use from sheep to cattle), wildfire suppression, and plant succession have altered plant cover and litter on some sites, which lead to increased soil erosion. These actions and natural forces have changed the general classes of plant cover to higher amounts of shrub canopy and reduced herbaceous cover, leading to increased susceptibility for soil erosion to occur. In addition, the concentration of livestock use and duration of this use next to natural water sources has altered plant communities in these locations more than anywhere else. These alterations include increased bare ground, sheared-off streambanks, reduction or loss of woody shrubs and trees that provide deep-root holding capability and large debris, and conversion to grazing tolerant, but shallow-rooted grasses, all of which lead to reduced stability along waterways and increased potential for soil erosion.

## **Standard 2**

## **Riparian/Wetland Health**

Vegetation consists of riparian-wetland habitat types. Common plant species include Nebraska and beaked sedge, tufted hairgrass, Kentucky bluegrass, redtop, meadow foxtail, Baltic rush, alkali sacaton, brookgrass, and less common sedges, rushes, grasses and forbs. At some sites there may be willows, cottonwood, waterbirch, rose, currant, dogwood, chokecherry and aspen. Woody plant species are usually found at higher elevations where water is more abundant and impacts caused from browsing are minimal. Plant species composition and diversity is important for riparian wetland health. Riparian vegetation helps to capture sediments and associated materials, thus enhancing the nutrient cycle by capturing and utilizing nutrients that would otherwise move through the system unused. Cattle grazing is one of the principle uses of public rangelands, and may be the single most influencing factor to affect riparian-wetland habitat types. Grazing management practices often result in long duration of livestock use (spring through fall), particularly in riparian habitats where water sources occur and forage retains palatability longer than upland sites. This has lead to shifts in species composition, cover and stability as species such as sedges, bunchgrasses, shrubs and willows decreased and grazing tolerant or undesirable species such as Kentucky bluegrass, redtop, mat muhly, Baltic rush and annual/early successional forbs increased.

## **Standard 3**

## **Upland Vegetation**

Upland vegetation on each site consists of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance. Due to the local soils and climate, vegetative communities in the RFO are dominated by sagebrush, saltbush and greasewood, along with various grasses and forbs. As precipitation increases into the foothills

and mountains, pockets of juniper, aspen and mountain shrubs also occur. In the short grass prairie of eastern Wyoming native grasses become the dominant vegetative component. Common plant species frequenting upland sites in this area include a dozen types of sagebrush, Douglas' and rubber rabbitbrush, winterfat, horsebrush, black greasewood, Nuttall's saltbush, shadscale, snowberry, serviceberry, bitterbrush, mountain mahogany, sumac, creeping juniper, buffaloberry, Utah juniper, aspen, limber pine, lodgepole pine, blue spruce, Douglas fir, subalpine fir, wheatgrasses, bluegrasses, ricegrass, needlegrasses, wildrye, squirreltail, three-awn, blue grama, threadleaf sedge, and a wide variety of mostly native forbs. These many plant species help to support wildlife and livestock by providing thermal and hiding cover, and most important a resource of dietary intake. Small infestations of weed species have been identified, primarily knapweeds and musk thistle, and are treated promptly to control their proliferation. Most of these locations are found where there was some form of intensive soil disturbance, such as sheep bedding grounds, drill pad sites, and roads. These locations are also where annual species like halogeton and Russian thistle are commonly noticed. Cheatgrass is present in many locations but does not appear to be spreading rapidly. Sites which are warmer (rock piles and south slopes) and have disturbance (old lambing grounds, runoff from rocks, old pads and roads) are where it is most often observed. Grazing does affect upland vegetation, but in more subtle ways than compared to road construction or oil and gas field development. For instance, grazing use of long duration through the spring and summer (entire growing season) has reduced the abundance of some bunchgrass species and led to increased amounts of bare ground and less desirable species such as little bluegrass, rhizomatous wheatgrasses, prickly-pear cactus and annual forbs.

#### **Standard 4**

#### **Wildlife/T&E&Sensitive Species**

Wildlife is both abundant and diverse across the RFO. The wildlife resources in the area are described in the Great Divide RMP Draft EIS (pp 180-210). In general, wildlife habitat varies from yearlong to summer to crucial winter range for the common big game species of elk, antelope, and mule deer; and seasonal habitat for raptors, songbirds, waterfowl and other migrating species. Common resident wildlife includes coyote, fox, badger, rabbits, prairie dogs, ground squirrels, greater sage-grouse, leopard frogs, horned lizards, and rattlesnakes. In specific areas there are also bighorn sheep, white-tail deer, moose, Columbian and plains sharp-tailed grouse, Wyoming toad, and black-footed ferrets.

#### **BLM Wyoming State Sensitive Species**

Many wildlife and plant species populations are declining, and though there may be many reasons for this, one of the causes of this decline is loss of habitat from the landscape. The objective of the sensitive species designation is to ensure that we consider the overall welfare of these species when undertaking actions on public lands, and do not contribute to the need to list the species under the provisions of the Endangered Species Act (ESA). The lack of demographic, distribution, and habitat requirement information compounds the difficulty of taking management actions for many species. While there are specific actions identified at this

time, the development of new fences and modification of existing fences are designed to continue improvement of all habitats within the RFO area.

The Bureau's management authority for sensitive species is not as specifically structured as for proposed or listed, threatened or endangered (T/E) species. Our management mandate is less regulatory, and more administrative and generic for sensitive species. It is the intent of the sensitive species policy to emphasize the inventory, planning consideration, management implementation, monitoring, and information exchange for the sensitive species on the list in light of the statutory and administrative priorities mentioned above. In most instances, the following types of actions/activities would be appropriate and expected for sensitive species management: Inventory, Land Use Planning, Conservation Strategies, NEPA Analysis, Best Management Practices (BMP's), Monitoring and Information Interchange.

The following sensitive species, or their habitats, has been identified within the Rawlins Field Office area:

<b>Mammals</b>		
<b>Species Common Name</b>	<b>Scientific Name</b>	<b>Associated Habitat</b>
Pygmy Rabbit	<i>Brachylagus</i>	Basin-prairie and riparian shrublands
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	Grasslands eastern Wyoming
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	Basin-prairie shrub, grasslands
White-tailed Prairie Dog	<i>Cynomys leucurus</i>	Basin-prairie shrub, grasslands
Long-eared myotis	<i>Myotis evotis</i>	Conifer and deciduous forests, caves and mines
Fringed myotis	<i>Myotis thysanodes</i>	Conifer forests, woodlands, caves and mines
Spotted Bat	<i>Euderma maculatum</i>	Cliffs over perennial water, basin-prairie shrubs
Wyoming Pocket Gopher	<i>Thomomys clusius</i>	Meadows with loose soil
Swift Fox	<i>Vulpes velox</i>	Grasslands

<b>Birds</b>		
<b>Species Common Name</b>	<b>Scientific Name</b>	<b>Associated Habitat</b>
White-faced Ibis	<i>Plegadis chihi</i>	Marshes, wet meadows
Trumpeter Swan	<i>Cygnus buccinator</i>	Lakes, ponds, rivers
Ferruginous Hawk	<i>Buteo regalis</i>	Basin-prairie shrub, grassland, rock outcrop
Peregrine Falcon	<i>Falco peregrinus</i>	Tall cliffs
Greater Sage-grouse	<i>Centrocercus urophasianus</i>	Basin-prairie shrub, Mountain-foothill shrub
Columbian Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>	Grasslands

	<i>Columbians</i>	
Long-billed Curlew	<i>Numenius americanus</i>	Grasslands, plains, foothills, wet meadows
Burrowing Owl	<i>Athene cunicularia</i>	Grasslands, basin-prairie shrub
Sage Thrasher	<i>Oreoscoptes montanus</i>	Basin-prairie shrub, mountain-foothill shrub
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Basin-prairie shrub, mountain-foothill shrub
Brewer's Sparrow	<i>Spizella breweri</i>	Basin-prairie shrub
Sage Sparrow	<i>Amphispiza billineata</i>	Basin-prairie shrub, mountain-foothill shrub
Baird's Sparrow	<i>Ammodramus bairdii</i>	Grasslands, weedy fields
Northern goshawk	<i>Accipiter gentiles</i>	Conifer and deciduous forests
Mountain plover	<i>Charadrius montanus</i>	Grasslands and prairie dog towns

Fish		
Species Common Name	Scientific Name	Associated Habitat
Roundtail Chub	<i>Gila robusta</i>	Colorado River drainage, mostly large rivers, also streams and lakes
Bluehead Sucker	<i>Catostomus discobolus</i>	Snake River Drainages
Colorado River Cuthroat Trout	<i>Oncorhynchus clarki pleuriticus</i>	Colorado River drainage, clear mountain streams
Flannelmouth Sucker	<i>Catostomus latipinnis</i>	Colorado River drainage, mostly large rivers, also streams and lakes

Amphibian		
Species Common Name	Scientific Name	Associated Habitat
Northern Leopard Frog	<i>Rana pipiens</i>	Beaver ponds, permanent water in plains and foothills
Great Basin Spadefoot	<i>Spea intermontana</i>	Spring seeps, permanent and temporary waters
Western Boreal Toad	<i>Bufo boreas boreas</i>	Riparian areas >7500 feet in elevation

Plants		
Species Common Name	Scientific Name	Associated Habitat
Nelson's Milkvetch	<i>Astragalus nelsonianus</i>	Alkaline clay flats, shale bluffs and gullies, pebbly slopes, and volcanic cinders in sparsely vegetated sagebrush,

		juniper, & cushion plant communities at 5200- 7600'
Cedar Rim Thistle	<i>Cirsium aridum</i>	Barren, chalky hills, gravelly slopes, & fine textured, sandy-shale draws 6,700-7,200'
Gibbens' Beardtongue	<i>Penstemon gibbensii</i>	Sparsely vegetated shale or sandy-clay slopes 5,500-7,700'
Laramie Columbine	<i>Aquilegia laramiensis</i>	Crevice of granite boulders & cliffs 6400-8,000'
Weber Scarlet Gilia	<i>Ipomopsis aggregate ssp. weberi</i>	Openings in coniferous forests 8,500-9,600'
Laramie False Sagebrush	<i>Sphaeromeria simplex</i>	Cushion plant communities on rocky limestone ridges and gentle slopes 7,500-8,600'
Persistent Sepal Yellowcress	<i>Rorippa calycina</i>	Riverbanks and shorelines, usually on sandy soils near high water line

### Endangered, Threatened, Proposed and Candidate Species

There are 22 endangered, threatened, proposed and/or candidate wildlife species that may be found, or have the potential to be found, within the Rawlins Field Office area. Informal consultation with the U.S. Fish and Wildlife Service (Service) in Cheyenne, Wyoming, would conclude the number of species that may be affected, and the species that should not be affected, by the construction of new or modification of existing fences.

Mammals	
Species Common Name	Associated Habitat
Bald Eagle	Conifers, Cottonwood-riparian, River ecosystems
Black-Footed Ferret	Prairie dog colonies with black-tailed prairie dog complex >80 acres and white-tailed prairie dog complex >200 acres
Canada Lynx	Early and late conifers forest >6500 feet in elevation, rangelands
Prebles's Meadow Jumping Mouse	Varying widths (360-394' from stream edge) along portions of the Lodgepole Chugwater, and Cottonwood Creeks (and some tributaries) in Albany, Laramie, and Platte Counties

Birds	
Species Common Name	Associated Habitat

Yellow-Billed Cuckoo	Cottonwood/Willow riparian habitat west of the Continental Divide
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Plants	
Species Common Name	Associated Habitat
Blowout Penstemon	Sparsely vegetated shifting sand dunes or wind carved depressions
Ute Ladies' Tresses	Endemic to moist soils in mesic or wet meadows near springs, lakes, seeps, and riparian areas within 100 year flood plain of perennial streams ranging from 4,300-7,00 feet in elevation
Colorado Butterfly Plant	Endemic to moist soils in mesic or wet meadows of floodplain areas in Laramie County, WY

Fish & Toads	
Species Common Name	Associated Habitat
Wyoming Toad	Known distribution is restricted to within 30 miles of Laramie, Wyoming within the Mortenson Lake and Hutton Lake National Wildlife Refuges
Colorado River Species: Colorado Pikeminnow, Humpback Chub, Bonytail, Razorback Sucker	Colorado River Basin
North Platte River Species: Pallid Sturgeon, Eskimo curlew, Interior Least Tern, Piping Plover, Western Prairie Fringed orchid, Whooping Crain, Bald Eagle	North Platte River System

<b>Standard 5</b>	<b>Water Quality</b>
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Water from springs, seeps, artesian wells, drilled wells, streams, rivers, lakes, and reservoirs differ in their quantity and quality of water produced. Water sources vary in availability, from rivers and reservoirs which hold or flow water year round to small perennial, annual, and intermittent streams that may or may not flow during dry summer months. Flows from springs, seeps, and wells vary from what amounts to a wet spot a few feet in diameter to 5 to 10 gallon per minute flows. In the Divide Basin and drier areas of the Rawlins Field Office this water will run from a few feet to a 1/4 mile before drying up, whereas at higher elevations water flows may augment perennial waters. Water quality at perennial sources is generally good, in terms of

supporting use by wildlife, livestock, wild horses, and riparian habitat. However, around these sources water quantity and quality is often highly impaired due to animal trampling and defecation. Livestock and wild horse use along intermittent and perennial channels also affect water quality when duration of use is too long. Loss of bank cover or conversion to plant species with lower soil holding capability lead to wider, more shallow channels with higher water temperatures and turbidity, lower oxygen levels, and impaired channel function.

#### **Standard 6**

#### **Air Quality**

Air Quality within the RFO is generally very good. The persistent wind common to Wyoming tends to dissipate emissions from industrial developments, highways, and man-made and natural fires but also tends to reduce visibility by adding dust to the air.

The amount of noise common in the RFO is dependent on location within the management area. Noise levels vary from low levels generated entirely by wind to maximum levels damaging to hearing generated by vehicles and industrial equipment.

#### **Recreation, Visual Resources**

Recreation in the RFO management area covers a wide range of interests. People enjoy the solitude, scenic beauty, and a variety of non-motorized and motorized activities including hiking, camping, hunting and fishing, rock hounding, bird watching, horseback riding, four-wheeling, biking, sightseeing, and antler collection among others.

The quality of vistas within the RFO are ranked into four visual classes; Class I visual resource areas represents wilderness areas, wilderness study areas, wild and scenic rivers, and natural landscapes where modification activities may be restricted and/or require mitigation. Class II visual resource areas represent locations where landscape modifications should blend with surrounding environmental characteristics so as not to disturb visual quality (i.e. forest boundaries, highly recreated areas, and historical sites). Areas with existing and/or evident modification to landscape characteristics would be categorized as Class III or IV visually, depending on the original composition and characteristics of the landscape (i.e. industrial areas, mineral activity, transportation routes, and disturbed areas).

#### **Environmental Impacts**

##### **Proposed Action**

The proposed action will have the following effects within the Rawlins Field Office:

Effect of the proposed Action on Critical Elements of the Human Environment

Environmental Elements	Effect
Wild and Scenic Rivers	None
Hazardous/Solid Wastes	None
Environmental Justice	None
Floodplains	None
Native Americans Religious Concerns	None
Wilderness	None
Cultural Resources	None
Prime or Unique Farmlands	None

#### Standard 1

#### Soils/Watershed Health

The implementation of the proposed action would result in an increase in soil and watershed health. Fence construction would help distribute animal impacts across a watershed and prevent impacts in areas where they are not desired. Fencing would also give livestock operators the flexibility needed to develop effective rotation and deferment grazing systems to improve soil and watershed health.

The principle short-term impact to soils is the disturbance and compaction caused by vehicles driving along the fence-line during construction and maintenance. Over time it is likely that a two-track road would develop along one side of the fence where terrain permits. Livestock, wild horses, and to a lesser extent wildlife, would perpetuate trails along the fence-line. The only other disturbance to soils would be caused during actual digging or boring of holes for brace posts. These may be from 3 to 12 inches in diameter and 3 to 4 feet in depth. Some minor amounts of oil and other fluids from vehicles used in construction and maintenance may be dripped or spilled on the ground.

Long-term effects to soils would result from fences directing animal behavior. Managing livestock movements between pastures would change duration and season-of-use. Areas which are subjected to more appropriate use of vegetation would lead to improved ground cover and vegetative production resulting in improved watershed condition and reduced soil erosion. Monitoring in the Bar Eleven allotment which had pastures created to manipulate season of use and reduce the duration of use showed an increase in plant cover and litter from an average of 58 to 82 percent over a nine year period. It stands to reason that by increasing soil cover, water infiltration and soil moisture available for plant growth will increase, soil functions will improve, and soil erosion will decrease. In the South Barrel Draw area on a saltbush site, similar trends were observed following rotation of livestock use to shorten the duration of impact and provide partial growing season rest for plant growth and recovery. Plant density and species composition improved while bare ground was reduced in an area that averages only 7 inches of precipitation annually. Other examples of these trends in plant and soil cover are found on other allotments within the RFO where similar management changes have occurred. Another benefit that fences

provide is during the use of prescribed burns; areas can be rested as necessary to meet specific objectives. Improved livestock management would also lead to healing of gullies and perennial streams/riparian habitat. Barren or newly deposited soils can become stabilized with vegetation from controlled timing and duration of forage utilization.

## **Standard 2**

### **Riparian/Wetland Health**

Riparian and wetland health would benefit under the proposed action. Riparian areas are extremely important to both wildlife and livestock for forage production, thermal cover, hiding cover, and watering. Fencing in these habitats is usually a small enclosure around a water source or pasture fencing to provide more controlled management of grazing. Impacts would occur to soils and vegetation on a small scale along the fence line similar to those described under Standard 1.

Fencing riparian habitat into smaller management areas reduces animal impacts caused by hoof action and vegetation utilization, which protect the functionality of the system and allow it to increase in health. Restricting animal disturbance to these areas would also give riparian vegetation the rest needed to establish in previously disturbed areas. Providing the time for plant growth to occur allows vegetation to establish on bare sites within riparian areas, which helps to reduce sediment loading and bare ground erosion. As these natural processes proceed with controlled grazing use, proper functioning condition is restored and maintained. Numerous examples have been documented where this has happened, including Muddy Creek, Loco Creek and Pete Creek. Stream banks become more stable, channels narrow, and vegetation cover and composition improve. For example, locations with summer-long cattle use which were dominated by Kentucky bluegrass, redtop, thistles and dandelions with sloughing stream banks are now stable systems with species comprised of Nebraska and beaked sedge, tufted hairgrass, American mannagrass northern reedgrass, licoriceroot, goldenrod and willows. Woody species which benefit from controlled grazing or exclusion from grazing include willows, waterbirch, cottonwood, dogwood, chokecherry, and currant. Small enclosure fences around water sources eliminate or reduce trampling that can restrict water flow and decrease the acreage of riparian habitat below the source. They also allow desired woody and herbaceous species, particularly uncommon shrubs and trees, to provide more diverse species and vertical structure in riparian habitats. Special management fences usually do not exclude wildlife, and are used for wetland, fisheries, and riparian habitat management. Livestock may be allowed in these areas as long as resource objectives would still be achieved

## **Standard 3**

### **Upland Vegetation**

Under the proposed action upland vegetation health, vigor, and diversity would be increased. Effects on upland vegetation would result from a change in animal behavior and distribution. New fences allow land managers to manipulate the duration, season-of-use, distribution and amount of forage use for most species of concern. Larger fence projects, such as allotment or

pasture boundary fences, are used to manage livestock and/or wild horses.

Construction activities would result in disturbance to vegetation along the fence-line. Vegetation that is tall enough to impede construction of fences would be sheared off near ground level with a brush-beater or with hand labor in isolated locations. The soil surface and root systems would be left intact. Long term impacts would include reduced vegetative cover where new two-track vehicle trails and animal trails are created or where vegetation height must be reduced to assure proper function of electric fence. The actual amount of vegetation removed would be minimal.

Construction activity could introduce invasive weeds to un-infested areas. Construction vehicles could also spread weeds from one area to another. Mitigation measures designed to identify and/or treat weed patches prior to construction and to assure that vehicles are cleaned prior to leaving weed infested areas would reduce the spread of weeds. Where weeds are spread into new areas, treatments would be required to reduce and/or eliminate their presence.

The use of fencing for livestock management improves the flexibility to control and manipulate use periods. In normal grazing situations, this would provide the necessary growing season rest and recovery time from grazing to maintain or improve desirable species, primarily bunchgrasses such as Indian ricegrass, basin wildrye, needleandthread, green needlegrass, bottlebrush squirreltail, and mutton bluegrass. It would also reduce the composition of increaser species that benefited from long duration grazing such as rhizomatous wheatgrass, little bluegrass and prickly-pear cactus. In times of drought or when more specific grazing management becomes necessary, such as recovery time following wildfires or prescribed burns, flexibility in the grazing operation would be improved to meet both livestock needs and resource objectives.

#### **Standard 4 Wildlife/T&E Sensitive Species**

The proposed action would temporarily displace wildlife during construction activities. These impacts would be short-term and wildlife would return soon after construction ended. Site-specific seasonal construction restrictions and mitigation measures would protect species of special interest as well as other wildlife. Long-term effects on wildlife would relate primarily to changes fences would have on seasonal movements. Fence location, type, and wire spacing are designed for each project to minimize these impacts. As an example, high tensile fence has only been used in the Rawlins Field Office since 1992 but already appears to cause fewer impacts to wildlife and results in less maintenance for ranchers. High tensile fence is barbless and more flexible than standard barbed-wire fence and wildlife which become entangled in the fence are better able to pull free and escape unharmed. No matter how well designed; standard fence designs would still occasionally kill wildlife when big game animals become entangled in them or become separated from their herd and be more prone to predation. Additional fences within the RFO management area also increase the chance that birds would fly into wires and be killed. These impacts would not contribute to any decline in healthy wildlife populations.

Properly designed and maintained fences would result in improved livestock management while

having minimal detrimental effect on wildlife. The effect fences have on wildlife can be reduced by the placement of gates in fence-lines and at corner locations. Leaving gates open during periods of livestock non-use would increase wildlife movement in and out of fenced pastures/allotments. The modification and relocation of existing fences that restrict animal movement, to fence designs and locations that do not, would benefit wildlife. Improved cover, species composition, and vertical structure would provide better quality and quantity of habitat for wildlife. This is especially important in riparian habitats which support up to four times the number of wildlife species that upland habitats support. Improved ground cover, litter, and water infiltration would improve the soil surface and subsurface microclimates which would benefit insect, bird, reptile, and small mammal populations. Greater amounts of residual cover would improve nesting habitats on rangelands for greater sage-grouse and other ground nesting birds.

Modification of existing fence design or location would result from a recognized problem identified through field evaluation, monitoring, or use supervision. The need for fence modification could be the result of maintenance problems or conflicts with other resources. Any fence on public land that does not conform to standard BLM designs would be modified where needed and as manpower or funding permit. Big game animals would benefit from any fence modification that removes net wire fence or alters inappropriate wire spacing.

#### **Standard 5**

#### **Water Quality**

The fencing of water sources would have no adverse impacts on water quality or quantity. The amount of disturbed soil around fence posts that could enter water flows would be negligible. Existing soil conditions in and around water sources would vary, and fence construction and type would be designed accordingly. Trampling, defecation, and compaction impacts caused by wildlife, wild horses, and livestock would be eliminated and reduced from the water source. Water sources fenced off from wildlife and livestock use would have off-site water or water-gaps developed for animal watering. Benefits of implementing the proposed action include maintaining or enhancing flows and improved water quality. In some cases, water yield below extended a mile or more farther and flows also improved when compacted soils were removed above the water source. Projects of this nature result in greater amounts of water made available for drinking by wildlife and livestock, than if it were simply discharged or existing on the soil surface.

#### **Standard 6**

#### **Air Quality**

Fence construction would involve the use of light motorized equipment that would add short-term combustion engine emissions to the air. Individual projects would not require more than a few vehicles at any one time and construction of individual projects would normally last only a few days to a few weeks. Emissions would dissipate rapidly and would not pose a health hazard to anyone in the area including the construction crew.

Engine noise would occur only during construction and during periods of fence maintenance. Increased noise levels would only be disturbing to people in close proximity to the actual fence construction. Employees bothered by elevated noise levels would likely wear hearing protection. Visitors to the public land would most likely leave the immediate construction area. Wildlife in the area would be displaced during construction but would likely return to the area soon after construction.

### **Recreation, Visual Quality**

The presence of construction equipment would decrease one's sense of solitude and reduce the visual quality of their outdoor experience. Displacement of wildlife due to construction activity may also impact recreation, primarily during hunting season or for those viewing wildlife. These impacts would only last the duration of actual construction or maintenance activities. Rangeland fences are fairly unobtrusive and would not greatly detract from the scenery of an area.

Fences are rarely placed in Class I visual resource areas, but if a fencing action is proposed, mitigation as to the type and location of the fence may be required along with a separate EA. Fencing placed across a Class II visual resource area landscape may require mitigation to hide and/or camouflage its appearance. Proper mitigation of fencing projects across Class II landscapes would not require individual EA's for construction, and would be assessed adequately under this programmatic EA. Consultation with the RFO Recreation Specialist and possibly archeologists (Historic Trails) would be required for all projects proposed in Class I or II visual resource areas.

Additional fences would mean more obstacles for recreationists and the opportunity for additional gates being left open. Placing gates at all major two-track and main traffic roads, spacing gates appropriately, and the use of steel gates or gate openers on wire fences would help reduce this impact to an acceptable level by reducing public access problems. The signing of gates would remind recreationists to leave gates as they are found or of seasonal closure and open periods.

Benefits to recreation are primarily related to the use of public lands, for hunting, fishing, camping, hiking, mountain biking, and viewing of wildlife, wild horses, or scenic values. The enhancement of riparian habitat and fisheries may be the most obvious change that people notice, however, subtle changes would occur in most environments. As these resources values improve, the quantity and quality of recreational opportunities would also improve.

### **No Action Alternative**

## **Standard 11 Soils/Watershed Health**

The principle short-term impact to soils would be the disturbance and compaction caused by vehicles driving along existing fence-lines during maintenance activities. Driving along the

fence-lines would perpetuate two-track roads along one or both sides of the fence where terrain permits. Livestock, wild horses, and to a lesser extent wildlife, would also perpetuate trails along the fence-line. Some minor amounts of oil and other fluids from vehicles would be dripped or spilled on the ground.

Current soil conditions would continue under the no action alternative. Livestock movements within large pastures would continue as allowed by existing fences. Areas which are currently subjected to elevated levels of use would contribute to elevated levels of soil erosion (depending on soils, topography, and climate). Some areas may show improvement following other management methods such as herding, additional water developments, or reduction in livestock use. Areas currently grazed at appropriate use levels and duration-of-use would continue to provide conditions which would maintain adequate ground cover, vegetative production, and stable watershed conditions. Other management techniques would be required to heal gullies and perennial streams/riparian habitat.

## **Standard 2 Riparian/Wetland Health**

Water sources currently being trampled or over-grazed would not be protected. Other management techniques would not provide the livestock and/or wild horse control necessary to allow desired woody and herbaceous species to compete with grazing tolerant species. Woody species such as willows, waterbirch, cottonwood, dogwood, chokecherry, and currant, would not derive the benefits from controlled grazing or exclusion from grazing. Control of livestock and/or wild horses would be based on existing fences and water. Livestock would in some instances be herded or manipulated with water or adjusted time of use. In rangelands with important riparian habitat or special management concerns it would be difficult or impossible to achieve all resource objectives. Riparian objectives for herbaceous species might be partially met; however, it is unlikely that woody plant species objectives would be met at all. The limited ability to defer or rest riparian habitat would still create livestock distribution problems and overuse of desirable plant species, with the trend of increasing less desirable plants continuing. Bank stability would only improve slightly, channels would not narrow, and proper functioning condition would remain in the at-risk category without other significant changes in management.

## **Standard 3 Upland Vegetation**

Maintenance activities would result in minor disturbance to vegetation along the fence-line. Long-term impacts would include reduced vegetative cover where two-track vehicle trails and animal trails are perpetuated or where vegetation height must be reduced to assure proper function of electric fence. The actual amount of vegetation removed would be minimal. Maintenance activity could introduce invasive weeds to un-infested areas. Maintenance vehicles could also spread weeds from one area to another. Where weeds are spread into new areas, treatments would be required to reduce their presence.

Effects on vegetation would remain unchanged. The inability to construct new fences would limit land managers ability to manipulate the duration, season-of-use, distribution and amount of forage use in many situations. Historic, long-duration grazing which allowed livestock to repeatedly graze more desirable species, primarily bunchgrasses such as Indian ricegrass, basin wildrye, needleandthread, bottlebrush squirreltail, and mutton bluegrass would be controlled only by timing of use, herding, and water developments with only limited success. The ability to effectively control wild horse season-of-use would not exist. Riparian objectives for herbaceous species might be partially met; however, it is unlikely that woody plant species objectives would be met at all. The management capability to defer or rest upland habitat would still create livestock distribution problems and overuse of desirable plant species, maintaining existing conditions, or continuing the trend for more composition of species like little bluegrass, rhizomatous wheatgrass and annual forbs.

#### **Standard 4**

#### **Wildlife/T&E&Sensitive Species**

The No Action alternative would temporarily displace wildlife only during fence maintenance activities. These impacts would be short-term and wildlife would return soon after maintenance ended. Wildlife would not encounter additional long-term barriers to migration and seasonal movements. Some existing poorly designed fences would continue to create problems for big game travel. Poorly located and/or constructed fences pose a much greater hazard to wildlife than fences that are properly located and constructed to BLM standards. Whether fences are well designed or poorly designed, standard fence designs would still contribute to the death of wildlife when big game animals become entangled in them or when young animals become separated from their mothers. Existing fences would continue to be obstacles that birds would fly into and be killed. These impacts would not contribute to any decline in healthy wildlife populations. Wildlife would not benefit from improved composition and cover in vegetation, or overall improved condition and function of riparian and upland habitats. As a result, the diversity and abundance of wildlife species which should be observed in the RFO would not improve.

#### **Standard 5**

#### **Water Quality**

Water sources would continue under existing conditions. No fencing actions to protect or improve their production and quality of water and habitat would be implemented. Many water sources, due to their few occurrences in dry habitats, are susceptible to overuse by livestock, wild horses and wildlife. Water sources unfenced would continue to receive elevated disturbance, especially during dry periods, and water sources that have previously been fenced will continue to have their improvements kept in functioning condition. Trampling, defecation, and compaction impacts caused by wildlife, wild horses, and livestock to unfenced water sources would continue and would result in the continued reduced flows, poor water quality, and in some cases the elimination of existing water sources.

Impacts to air resources would continue at current levels. Trucks, motorcycles and all-terrain vehicles would be used in addition to riders on horseback to maintain existing fences. Emissions from gas and/or diesel engines would dissipate quickly and would not pose a health hazard to anyone in the area. Dust raised by vehicle tires during maintenance would create a minor and temporary reduction in visibility.

Vehicle engine noise and possibly other small engine noise would occur during fence maintenance activity. Noise levels would only be disturbing to people in close proximity to the actual activity. Employees bothered by elevated noise levels would likely wear hearing protection. Visitors to the public land, if disturbed, would most likely leave the immediate area. Wildlife in the area would be displaced during times of increased human activity but would soon return to the area.

### **Recreation, Visual Resources**

The presence of fence maintenance equipment would decrease ones sense of solitude and decreases the visual quality of their outdoor experience. Displacement of wildlife due to maintenance activity may also impact recreation, primarily during hunting season or for those viewing wildlife. These impacts last only during actual maintenance activities and are generally negligible. Rangeland fences are fairly unobtrusive and do not greatly detract from the scenery of an area.

Benefits to recreation are most often related to improvements in riparian habitat and fisheries. Since improvement in these resources, as well as the more subtle changes in upland habitats, would be minor or not change in the no action alternative, benefits to recreation would also be minor or not improve.

### **Description of Mitigating Measures and Residual Impacts**

There would be no additional mitigation measures required, beyond that provided or requested by wildlife and/or cultural specialist. Residual impacts, other than those previously mentioned in this EA, would not occur.

### **Monitoring**

Monitoring of construction activities and impacts of new and modified fencing projects on public BLM lands will be conducted by the Rawlins Field Office resource staff and/or any cooperating partners in a project. Monitoring would be established to ensure projects implemented to achieve rangeland health standards result in improvement of desired resource values. Monitoring procedures and methodologies will be in conformance with BLM technical guides and policies or as otherwise agreed upon.

### **Cumulative Impacts**

There would not be any additional cumulative impacts as a result of implementing the proposed action than those already described previously in this EA and those assessed in the Great Divide Resource Management Plan.

### **CONSULTATION/COORDINATION**

The following office personnel were consulted during the preparation of this environmental assessment:

<b>Person</b>	<b>Position</b>	<b>Affiliation</b>
Mike Murry	Bureau of Land Management	Author/RMS
Deb Johnson	Bureau of Land Management	Assistant Manager Resources
Pam Huter	Bureau of Land Management	Archeologist
Susan Foley	Bureau of Land Management	Weeds/Soils
Andy Warren	Bureau of Land Management	Rangeland Management Lead
Chris Otto	Bureau of Land Management	Rangeland Management Spec.
Cheryl Newberry	Bureau of Land Management	Rangeland Management Spec.
Mike Calton	Bureau of Land Management	Rangeland Management Spec.
Mary Read	Bureau of Land Management	Wildlife Biologist
Dave Simons	Bureau of Land Management	NEPA Coordinator

**DECISION RECORD  
AND  
FINDING OF NO SIGNIFICANT IMPACT**

**EA Number: WY-030-04-EA-192**

Recommendation: My recommendation is to approve the fencing projects, methods, and types as described in the Fencing Projects Programmatic Environmental Assessment.

Rationale for Recommendation: This Environmental Assessment drastically reduces the amount of redundancy and repetitive paperwork required for the types of projects evaluated in this document. The proposed action alternative allows managers to utilize fencing as a tool to help meet "Standards for Healthy Rangelands." This programmatic gives managers the flexibility to utilize different fence types and construction methods which would reduce wildlife avoidance while restricting livestock and wild horse movement. The proposed action is in conformance with the Great Divide Resource Management Plan, Record of Decision November 8, 1990.

Compliance and Monitoring: A specific monitoring and compliance plan is not required. All monitoring will follow the Great Divide Resource Area Monitoring Plan.

  
Rangeland Management Specialist

12/12/2005  
Date

Decision: It is my decision to authorize the fencing projects as described in the proposed action. Monitoring will follow the Great Divide Resource area Monitoring Plan.

Finding of No Significant Impact: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts are not expected to be significant and an environmental impact statement is not required.

If you wish to protest this proposed decision as provided by Title 43 CFR 4160.2, you are allowed 15 days after receipt of this notice within which to file such protest, either in person or in writing with the Field Manager, Bureau of Land Management, Rawlins Field Office, P.O. Box 2407 Rawlins, Wyoming 82301.

In the absence of a protest within the time allowed, the above proposed decision shall constitute my final decision as provided by Title 43 CFR 4160.3(a). Should this notice become the final decision you may file an appeal for the purpose of a hearing before an Administrative Law Judge and petition for stay of the decision pending final determination on appeal. In accordance with Title 43 CFR 4.470, you are allowed 30 days after this becomes the final decision within which to file such an appeal and to petition for stay with the Field Manager, Bureau of Land Management, Rawlins Field Office, P.O. Box 2407 Rawlins, Wyoming 82301. The appeal shall state the reasons, clearly and concisely, why you think the final decision is in error. Should you wish to file a petition for stay, you shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied
- (2) The likelihood of the appellant's success on the merits
- (3) The likelihood of immediate and irreparable harm if the stay is not granted
- (4) Whether the public interest favors granting the stay.

If you decide to also submit a petition for stay of the decision, a copy of the notice of appeal, statement of reasons, and petition for stay should be simultaneously filed with the Office of Regional Solicitor, Rocky Mountain Region, U.S. Department of the Interior, 755 Parfet Street, Suite 151, Lakewood, CO 80215.

If you have questions concerning this decision please contact Mike Murry or Andy Warren at the Rawlins Field Office at (307) 328-4200.

  
Rawlins Field Manager

12/13/05  
Date